

In the Claims

Please amend the claims as follows:

1 1. (Currently Amended) A microstrip filter comprising:
2 a plurality of resonators having a longitudinal gap ~~gaps~~ between each one of said
3 resonators ~~such that there is at least one longitudinal gap and at least one transverse gap;~~
4 an input portion have a first transverse gap between said input portion and a first
5 one of said plurality of resonators;
6 a dielectric block having said plurality of resonators on a first side; and
7 an enclosure at least partially covering said plurality of resonators, said enclosure
8 operating as a pseudo waveguide having a cutoff frequency that is higher than an operating
9 frequency of said microstrip filter.

1 2. (Original) The microstrip filter of claim 1, wherein said enclosure has a length
2 dimension and is open at opposite ends of its length.

1 3. (Currently Amended) The microstrip filter of claim 1, ~~wherein said plurality of~~
2 ~~resonators have an input portion and~~ further comprising an output portion having a transverse
3 gap between said output portion and a last one of said plurality of resonators.

1 4. (Currently Amended) The microstrip filter of claim 3, wherein said enclosure is open
2 near at least one of said input portion and said output portion.-

1 5. (Currently Amended) The microstrip filter of claim 4, wherein said enclosure
2 substantially encloses said ~~resonator portion~~ plurality of resonators ~~within a predetermined a.~~

1 6. (Original)The microstrip filter of claim 1, adapted to operate in a frequency range of
2 between about 1 and 100 GHz.

1 7. (Original) The microstrip filter of claim 6, wherein the thickness of said dielectric
2 block is at least one-twentieth of the microstrip filter's pass-band frequency's wavelength in the
3 dielectric block.

1 8. (Currently Amended) A high frequency filter comprising:
2 a dielectric substrate having a top side and a bottom side;
3 an input portion on said top side of said dielectric substrate;
4 a first resonator portion spaced transversely from said input portion and on said
5 top side;
6 a second resonator portion spaced longitudinally ~~from said first resonator~~ and on
7 said top side; and
8 one or more additional resonators ~~a third resonator portion~~ spaced longitudinally
9 from said second resonator and each other respectively, ~~from said second resonator and said one~~
10 or more additional resonators being on said top side; ~~wherein at least one of said input portion,~~
11 ~~said first resonator, said second resonator and said third resonator is spaced such that it is~~
12 ~~transversely coupled from another resonator portion, and wherein at least one of said input~~

13 ~~portion, said first resonator, said second resonator and said third resonator is longitudinally~~
14 ~~spaced from another resonator~~

15 an output portion on said top side of said dielectric substrate, said output portion
16 being spaced transversely from a last one of said one or more additional resonators;

17 an open ended enclosure over at least said first resonator, said second resonator,
18 and said one or more additional resonators, said open ended enclosure adapted to operate as a
19 pseudo-wave guide having a cut off frequency above an operating frequency of said high
20 frequency filter.

1 9. (Cancelled)

1 10. (Currently Amended) The high frequency filter of claim 8, further comprising a
2 ground ~~plan~~ plane on said bottom side of said dielectric substrate.

1 11. (Cancelled)

1 12. (Currently Amended) The high frequency filter of claim 11, wherein said enclosure
2 is open adjacent to ~~at least one of said input portion and said output portion.~~

1 13. (Currently Amended) The high frequency filter of claim 12, wherein said
2 enclosure comprises a conductive material on the a surface of said enclosure.

1 14. (Original) The high frequency filter of claim 8, further comprising a carrier plate,
2 said dielectric substrate being attached to said carrier plate.

1 15. (Currently Amended) The high frequency filter of claim 8, wherein the thickness of
2 said dielectric substrate from said top side to said bottom side is at least one twentieth of the high
3 frequency filter's pass-band frequency's wavelength in said dielectric substrate.

1 16. (Original) The high frequency filter of claim 8, wherein said filter is at least one of a
2 band-pass, low pass and a high pass filter.

1 17. (Original) The high frequency filter of claim 8, wherein said filter is at least one of a
2 strip line filter and a microstrip filter.

1 18. (Original) The high frequency filter of claim 8, wherein at least one of said first,
2 second and third resonators have a variation in their width over their length.

1 19. (Original) The high frequency filter of claim 8, wherein said high frequency filter is
2 adapted to operate at frequencies substantially between 1 GHz and 100 GHz.

1 20. (Currently Amended) An electronic system that is adapted to process high frequency
2 signals comprising:

3 a high frequency filter, said high frequency filter comprising:

4 a dielectric substrate having a top surface and a bottom surface;

5 a plurality of resonators spaced from each other on said top surface and
6 adapted to be longitudinally coupled;

7 an input portion spaced from a first one of said plurality of resonators, said
8 input portion adapted to transversely couple with said first one of said plurality of resonators;

9 an output portion spaced from a ~~second~~ last one of said plurality of
10 resonators, said output portion adapted to transversely couple with said last one of said plurality
11 of resonators; wherein at least one of said plurality of resonators is coupled to another resonator

12 or said input portion via a transverse coupling, and wherein at least another one of said plurality
13 of resonators is coupled longitudinally from another one of said plurality of resonators, and

14 an enclosure substantially covering said plurality of resonators, said
15 enclosure adapted to operate as a pseudo-wave guide having a cut off frequency above the
16 operating frequency of said high frequency filter.

1 21. (Original) The electronic system of claim 20 wherein said enclosure is open-ended
2 substantially near at least one of said input portion and said output portion.

1 22. (New) A high frequency filter comprising:

2 a dielectric substrate having a top surface and a bottom surface;

3 a plurality of resonators spaced from each other on said top surface and
4 adapted to be longitudinally coupled;

5 an input portion spaced from a first one of said plurality of resonators, said
6 input portion adapted to transversely couple with said first one of said plurality of resonators;

7 an output portion spaced from a last one of said plurality of resonators,
8 said output portion adapted to transversely couple with said last one of said plurality of
9 resonators; and
10 an enclosure substantially covering said plurality of resonators, said
11 enclosure adapted to operate as a pseudo-wave guide having a cut off frequency above the
12 operating frequency of said high frequency filter.
